Publication date : 02/27/2024

Course : UX design and ergonomics for tablets and smartphones

Practical course - 3d - 21h00 - Ref. UXX
Price : 1980 CHF E.T.

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On completion of the course, learners will be able to apply the key principles of ergonomics and UX Design (User Experience) to the design or improvement of tactile interfaces (tablets and smartphones), in order to optimize their attractiveness and navigation.

Teaching objectives

At the end of the training, the participant will be able to:

- Understand the vocabulary and key concepts of ergonomics and UX design
- Know the ergonomic requirements for developing applications on touchscreen devices
- Understanding user-centered design
- A method for designing and evaluating mobile interfaces: graphic charter, navigation, guidance, etc.
- Discover heuristic analysis of mobile HMIs
- Learn best practices for managing the design cycle of a mobile-compatible Web application

Intended audience

Webmasters, web designers, digital project managers, graphic artists, web designers, UX designers...

Prerequisites

Good knowledge of the Web and the use of mobile devices.

Course schedule

PARTICIPANTS

Webmasters, web designers, digital project managers, graphic artists, web designers, UX designers...

PREREQUISITES

Good knowledge of the Web and the use of mobile devices.

TRAINER QUALIFICATIONS

The experts leading the training are specialists in the covered subjects. They have been approved by our instructional teams for both their professional knowledge and their teaching ability, for each course they teach. They have at least five to ten years of experience in their field and hold (or have held) decision-making positions in companies.

ASSESSMENT TERMS

The trainer evaluates each participant's academic progress throughout the training using multiple choice, scenarios, hands-on work and more.
Participants also complete a placement test before and after the course to measure the skills they've developed.

1 Introduction and definition: what is ergonomics?

- Definition of ergonomics. Why do we need ergonomists?
- The role and benefits of ergonomics.
- Ergonomics, UX Research, UX Design and UI Design.
- Ergonomics and accessibility: constraint or complement?
- ISO standards for a standardized basis.
- Introduce ergonomics into the design cycle.
- Compatibility of UX methods with the Agile process.
- Types of intervention: design or correction.

Storyboarding workshops

Presentation of sites displayed on mobile, dedicated Apps. Exchange of experiences on accessibility, on the use of a mobile application...

2 Specific features of mobile HMI

- Display, tactile interaction.
- The evolution of mobile applications.
- Constraints linked to mobile use.
- Dedicated apps, an app for every operating platform. Trends.
- Native application. Trends.
- Web App.
- Responsive Design.
- The limits of the responsive website: mobile-first approach.
- Display constraints, screen resolution, size in DPI, infinite corners and edges.

3 Study users, their tasks and the context

- Human cognitive functioning.
- Target population: establish Personas.
- Personas' psychological mechanisms.
- User goals, motivations and emotions.
- Experience Map and context of use.
- Needs analysis.
- Examples of user scenarios.
- Task modeling: card sorting, task tree.

Hands-on work

Identification of Personas and several tasks/interaction scenarios. Experience Map and task trees.

4 Designing a mobile interface

- What is layout?
- Sketching, low-fidelity modeling.
- Medium-fidelity modeling.
- High-fidelity modeling.
- Tools available on the market.
- The principles of material design[.

Hands-on work

Interface design using low-fidelity visual tools (Balsamiq, Wireframe Sketcher).

TEACHING AIDS AND TECHNICAL RESOURCES

• The main teaching aids and instructional methods used in the training are audiovisual aids, documentation and course material, hands-on application exercises and corrected exercises for practical training courses, case studies and coverage of real cases for training seminars.
• At the end of each course or seminar, ORSYS provides participants with a course evaluation questionnaire that is analysed by our instructional teams.
• A check-in sheet for each half-day of attendance is provided at the end of the training, along with a course completion certificate if the trainee attended the entire session.

TERMS AND DEADLINES

Registration must be completed 24 hours before the start of the training.

ACCESSIBILITY FOR PEOPLE WITH DISABILITIES

Do you need special accessibility accommodations? Contact Mrs. Fosse, Disability Manager, at psh-accueil@orsys.fr to review your request and its feasibility.

5 Universal ergonomics criteria

- The "universal" criteria: simplicity, intuitiveness, consistency, sense of control, affordance.
- The laws of Gestalt.
- Eye movements on HMI.
- FITTS' law.
- Hick's Law.
- Content ergonomics, semantics, wording.
- Grice's principle of cooperation.

6 Mobile HMI ergonomics

- Menus mobiles.
- Legible text, font size.
- Zones of information, zones of interaction.
- Colors, images, a matter of culture.
- Ergonomics of mobile icons and widgets.
- Form ergonomics, error handling, call-to-action.
- Navigating a mobile interface: display surface and amount of info.
- Navigation: drawer navigation, tabbed navigation.
- Time management.

Storyboarding workshops

Presentation of mobile site examples and discussion.

7 Analysis of interfaces with usability problems

- The heuristic analysis method: strengths, weaknesses, ROI.
- Heuristic analysis methodology.
- A mobile HMI analysis grid.
- Study of analysis and audit grids.

Hands-on work

Audit of different smartphone/tablet interfaces with usability problems.
Participants observe and identify areas for improvement.

Dates and locations

REMOTE CLASS
2026 : 15 June, 28 Sep., 2 Dec.